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Notice of Allowability	Application No.	Applicant(s)	
	10/713,842	GOLDSTEIN, MICHAEL	
	Examiner	Art Unit	
	Alessandro Amari	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amdt of 12/20/2006.
2. ☒ The allowed claim(s) is/are 8-17 and 21-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

REASONS FOR ALLOWANCE

1. Claims 8-17 and 21-27 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claim 8 is allowable for at least the reason, "surface having a curvature such that substantially all of the reflected light rays propagate at a first angle relative to an axis that passes through the point and converge towards a region to produce uniform illumination at the region" as set forth in the claimed combination. Claims 9-12 are allowable based upon their dependence on claim 8.

Claim 13 is allowable for at least the reason, "light rays converge towards a region on a plane perpendicular to the optical axis, the reflective surface having a curve segment that comprises a section of a parabolic curve that has a focal point at the location and has been rotated through an angle relative to the optical axis about an axis of rotation that is non-parallel to the optical axis" as set forth in the claimed combination. Claims 14-17 are allowable based upon their dependence on claim 13.

Claim 21 is allowable for at least the reason, "surface having a curvature such that substantially all of the reflected light rays propagate at a first convergence angle relative to an axis that passes through the point and converge towards a region to produce uniform illumination at the region" as set forth in the claimed combination. Claims 22 and 23 are allowable based upon their dependence on claim 21.

Claim 24 is allowable for at least the reason, "providing a first reflective surface to reflect light rays emanating from a location, the first reflective surface having a curvature such that substantially all of the light rays reflected from the first reflective surface

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propagate in a direction at a first angle with an axis and converge toward a region to produce uniform illumination at the region; and providing a second reflective surface to reflect light rays emanating from the location, the second reflective surface having a curvature such that substantially all of the light rays reflected from the second reflective surface propagate in a direction at a second angle with the axis and converge toward the region, the second angle different from the first angle" as set forth in the claimed combination. Claims 25-27 are allowable based upon their dependence on claim 24.

The prior art of record teaches an apparatus or method comprising a first reflective surface reflecting light rays emanating from a point, the first reflective surface having a curvature. However, the prior art of record, does not teach that substantially all of the reflected light rays propagate at a first angle relative to an axis that passes through the point and converge towards a region to produce uniform illumination at the region. The prior art of record, in particular Foo, (see Figures 5A-5D) shows that different light rays are reflected by a parabolic reflective segment at different angles (e.g., $\theta - \alpha$, θ , $\theta + \alpha$) and so does not teach that substantially all of the light rays propagate from the reflective surface at a first angle relative to an axis to produce uniform illumination as recited. Also, the prior art of record, Vasylyev only shows reflective surfaces that reflect some of the light rays but does not show that the reflective surfaces reflect substantially all of the light rays at a first angle relative to an axis so as to produce uniform illumination at a region. Furthermore, Foo teaches parabolic reflective segments 502 that are each formed from an off-axis segment of a parent parabolic surface. Foo uses an off-axis segment so that a working surface 520

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can be located outside a collimated beam 504 (see FIG 5B and col. 5, lines 52-54). Foo does not disclose that any of the parabolic reflective segments 502 are rotated relative to the optical axis, let alone rotated about an axis of rotation that is non-parallel to the optical axis, as recited in claim 13 (see also page 7 of 9 of the Applicant's remarks of 20 December 2006).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alessandro Amari whose telephone number is (571)272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ava^{am}

16 March 2007

Alessandro Amari
ALESSANDRO AMARI
PRIMARY PATENT EXAMINER